



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 08/766,607      | 12/13/1996  | JEFFREY JACOBSEN     | KPN96-03A           | 7687             |

7590 03/18/2002

THOMAS O HOOVER  
HAMILTON SMITH BROOK & REYNOLDS  
TWO MILITIA DRIVE  
LEXINGTON, MA 021734799

EXAMINER

PIZIALI, JEFFREY J

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

2673

DATE MAILED: 03/18/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

08/766,607

Applicant(s)

JACOBSEN ET AL.

Examiner

Jeff Piziali

Art Unit

2673

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 February 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 December 1996 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Drawings*

1. This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required if the application is allowed.

### *Double Patenting*

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1-28 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-44 of copending Application No. 08/810,646. Although the conflicting claims are not identical, they are not patentably distinct from each other because Application No. 08/810,646 (like the pending application) claims a docking system for a telephone, comprising a handheld housing having a plurality of control elements and a connection port that electrically connects a control circuit within the housing to a wireless telephone that docks with the housing; an active matrix liquid crystal display mounted to the housing, the display receiving display data from the circuit; and a

Art Unit: 2673

light source within the hand held housing that illuminates the display (claim 1). Application No. 08/810,646 also (like the pending application) claims the light source includes an light emitting diode light source, as well as a lens that magnifies an image on the display (claim 9).

Application No. 08/810,646 additionally claims "a color sequential display circuit coupled to the matrix display and the control circuit" (claim 5) -- not found in the present invention's claims. However, such a color sequential display circuit is not essential for LCD operation. Therefore, it would have been obvious to an artisan at the time of invention to eliminate the color sequential display circuit, so as to provide for commonly known alternative display techniques (such as utilizing inexpensive monochromatic displays).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1, 7 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. Claim 1 recites the limitation "the array of pixel electrodes" in lines 9-10. There is insufficient antecedent basis for this limitation in the claim.

Art Unit: 2673

7. Claim 7 recites the limitation "the array of pixel electrodes" in line 12. There is insufficient antecedent basis for this limitation in the claim.

8. Claim 17 recites the limitation "the array of pixel electrodes" in line 12. There is insufficient antecedent basis for this limitation in the claim.

9. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

10. Claims 2 and 3 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. The current specification discloses, "the [pixel] array can be at least 320x240, 640x480 or higher" (see Page 4, Lines 26-27). However, if the invention is limited to an array of *at least* 640x480, then it cannot have a 320x240 (or a 320x480) array (see claims 2 and 3).

11. Claims 26-28 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. The current specification discloses, "monochrome resolutions of at least 75,000 pixels" and "a monochrome resolution of at least 300,000 pixels" (see Page 9, Lines

Art Unit: 2673

5-12). However, if the invention is limited to an array of *at least* 300,000 pixel electrodes (see claim 28), then it cannot have 75,000 pixel electrodes (see claims 26 and 27).

*Claim Rejections - 35 USC § 103*

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 1-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilska et al. (United Kingdom - 2,289,555) in view of Takahara et al. (US 5,436,635).

In regards to claim 1, Wilska discloses a docking system for a wireless telephone comprising: a display housing [1] (see Figures 1-3; Page 5, Paragraph 3) having a plurality of control elements [10, 11] (see Figure 3; Page 4, Paragraph 3) and a connection port [8] that electrically connects a display circuit [6] within the display housing to a handheld wireless telephone housing [17] docked with the display housing such that image data received by the wireless telephone is received by the display circuit, the display housing having a docking surface on which the handheld wireless telephone housing is mounted (see Figure 3; Page 5, Paragraph 3) and a liquid crystal display [9] mounted to the display housing and connected to the display circuit (see Figures 1-2; Page 4, Paragraph 2). Wilska does not expressly disclose an active matrix LCD, a light source nor a magnifying image lens.

However, Takahara discloses an active matrix liquid crystal display (see Column 33, Lines 22-28), a light source [Fig. 21, 211] positioned in a display housing [Fig. 21, 201] that

Art Unit: 2673

illuminates the LCD [Fig. 21, 214] and a lens [Fig. 21, 216] in the display housing that is positioned to receive an image formed on the LCD such that the lens magnifies the image (see Column 28, Lines 30-49). Wilska and Takahara are analogous art because they are from the shared field of handheld display devices. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of the invention, to utilize Takahara's active matrix LCD, light source and magnifying lens assembly with Wilska's communication device, so as to provide a high quality liquid crystal image that's easy to see (and read) in both dark and bright light.

In regards to claim 2, Wilska discloses at least a 320 x 240 pixel array (see Page 4, Paragraph 2).

In regards to claim 3, Wilska does not expressly disclose at least a 320 x 480 pixel array. However, Wilska does disclose providing a resolution greater than 640 x 200 pixels<sup>2</sup> (see Page 4, Paragraph 2). Therefore, for the purpose of providing a precise display image, it would have been obvious to an artisan at the time of invention to utilize at least a 320 x 480 pixel array.

In regards to claim 4, Wilska does not expressly disclose a transistor circuit array formed with single crystal silicon bonded to an optically transmissive substrate. However, Takahara discloses a transistor circuit array [Fig. 18A, 163] formed with single crystal silicon [Fig. 18A, 167c] bonded to an optically transmissive substrate [Fig. 18A, 162] with an adhesive layer [Fig. 18A, 167 a & 167b] (see Column 24, Line 44 - Column 25, Line 59). Therefore, it would have

Art Unit: 2673

been obvious to an artisan at the time of invention to use Takahara's transistor circuit array as Wilska's LCD so as to reduce extraneous light reflectance.

In regards to claim 5, Wilska discloses a transmitter (see Figures 1-2; Page 5, Paragraph 3).

In regards to claim 6, Wilska discloses a housing having a volume less than  $1000\text{ cm}^3$  (see Page 3, Paragraph 8).

In regards to claim 7, Wilska discloses a docking system [17] for a handheld wireless telephone [17] comprising: a handheld housing [1] having a plurality of control elements [10, 11] and a connection port [8] that electrically connects a display circuit [6] within the housing to the handheld wireless telephone [17] docked with the housing (see Figures 1-3; Page 4, Paragraph 3 and Page 5, Paragraph 3), the handheld housing having a docking surface on which the handheld wireless telephone housing is mounted, a display subhousing [9] carried by the housing and moveable between a storage and operating position (see Figures 7-9), and a liquid crystal display [9] (see Figures 1-2; Page 4, Paragraph 2). Wilska does not expressly disclose an active matrix LCD, an LED light source nor a magnifying image lens.

However, Takahara discloses an active matrix liquid crystal display (see Column 33, Lines 22-28), an LED light source [Fig. 21, 211] (see Column 30, Lines 1-18) positioned in a display subhousing [Fig. 21, 201] that illuminates the LCD [Fig. 21, 214] and a lens [Fig. 21, 216] in the display subhousing that is positioned to magnify an image formed on the LCD (see



Art Unit: 2673

Column 28, Lines 30-49). Thus, it would have been obvious to a person of ordinary skill in the art, at the time of the invention, to utilize Takahara's active matrix LCD, LED light source and magnifying lens assembly with Wilska's communication device, so as to provide a high quality liquid crystal image that's easy to see (and read) in both dark and bright light.

In regards to claim 8, Wilska does not expressly disclose a timing circuit. However, Takahara discloses a timing circuit (see Column 6, Line 52 - Column 7, Line 12). Therefore, it would have been obvious to an artisan at the time of invention to use Takahara's timing circuit with Wilska's LCD so as to regulate driving-signal flow to the display.

In regards to claim 9, Wilska discloses a battery [3] (see Figure 3).

In regards to claim 10, Wilska discloses a cradle [16] (see Figure 2; Page 5, Paragraph 2). For the purpose of securing the telephone to the communication device, it would have been obvious to an artisan at the time of invention to utilize Wilska's cradle to connect a telephone and to obtain the invention as specified in claim 10.

In regards to claim 11, Wilska discloses a connector [8] adapted to be received in a port in the wireless telephone [17], further comprising a latch [16]. For the purpose of securing the telephone to the communication device, it would have been obvious to an artisan at the time of invention to utilize Wilska's latch to connect a telephone and to obtain the invention as specified in claim 11.

In regards to claim 12, Wilska discloses a hidden lens in the storage position and a viewable lens in the operating position (see Figures 7-9; Page 10, Paragraph 3).

In regards to claim 13, Wilska discloses a rotatable display subhousing (see Figures 7-9; Page 10, Paragraph 3).

In regards to claim 14, Wilska discloses a display subhousing that translates relative to the housing (see Figures 7-9; Page 10, Paragraph 3).

In regards to claim 15, Wilska discloses a display that both rotates and moves translationally (see Figures 7-9; Page 10, Paragraph 3).

In regards to claim 16, Wilska does not expressly disclose the array of pixel electrodes has a diagonal of 0.25 inches. However, for the purposes of manufacturing an easy to read display while keeping the display small and portable, it would have been obvious to an artisan at the time of invention to utilize a diagonal of 0.25 inches to obtain the invention as specified in claim 16.

In regards to claim 17, Wilska discloses a docking system [17] for a handheld wireless telephone [17] comprising: a housing [1] having a plurality of control elements [10, 11] and a connection port [8] that electrically connects a display circuit [6] within the housing to a

Art Unit: 2673

handheld wireless telephone [17] docked with the housing, the housing having a docking surface on which the handheld wireless telephone housing is mounted (see Figures 1-3; Page 4, Paragraph 3 and Page 5, Paragraph 3), a display subhousing module [9] movable from a storage position to an operating position relative to the housing (see Figures 7-9) and a liquid crystal display [9] (see Figures 1-2; Page 4, Paragraph 2) and a battery [3] (see Figure 3). Wilska does not expressly disclose an active matrix LCD, an LED light source or a magnifying image lens.

However, Takahara discloses an active matrix liquid crystal display (see Column 33, Lines 22-28), an LED light source [Fig. 21, 211] (see Column 30, Lines 1-18) positioned in a display subhousing [Fig. 21, 201] that illuminates the LCD [Fig. 21, 214] and a lens [Fig. 21, 216] in the display subhousing that is positioned to magnify an image formed on the LCD (see Column 28, Lines 30-49). Thus, it would have been obvious to a person of ordinary skill in the art, at the time of the invention, to utilize Takahara's active matrix LCD, LED light source and magnifying lens assembly with Wilska's communication device, so as to provide a high quality liquid crystal image that's easy to see (and read) in both dark and bright light.

In regards to claim 18, Wilska does not expressly disclose a backlight. However, Takahara discloses a backlight [Fig. 21, 211] (see Column 28, Lines 30-49 and Column 30, Lines 1-18). Thus, it would have been obvious to a person of ordinary skill in the art, at the time of the invention, to utilize Takahara's backlight with Wilska's LCD, so as to provide a display that's easy to see (and read) in the dark.

Art Unit: 2673

In regards to claim 19, Wilska does not expressly disclose a side illumination device. However, Takahara discloses a side illumination device [Fig. 21, 211] (see Column 28, Lines 30-49 and Column 30, Lines 1-18). Thus, it would have been obvious to a person of ordinary skill in the art, at the time of the invention, to utilize Takahara's side illumination device with Wilska's LCD, so as to provide a display that's easy to see (and read) in the dark.

In regards to claim 20, this claim is rejected under the reasoning applied in the above rejection of claim 8.

In regards to claim 21, Wilska does not expressly disclose drawing less than 0.2 watts. However, for the purpose of drawing very little power, it would have been obvious to draw less than 0.2 watts to obtain the invention as specified in claim 21.

In regards to claim 22, Wilska discloses a method of displaying an image on a docking system in conjunction with a wireless telephone, comprising the steps of: electrically connecting a wireless telephone [17] with a docking surface of a docking station [1] such that a display control circuit [6] in the docking station receives image data from a transceiver [17] of the wireless telephone capable of receiving audio and image data, the wireless telephone being attached to the docking station at a connection port [8] of the docking station; and operating the display control circuit connected to the transceiver and a matrix display to display an image on the display using the image data (see Figures 1-3; Page 5, Paragraph 3). Wilska does not expressly disclose an active matrix LCD.

Art Unit: 2673

However, Takahara discloses an active matrix LCD (see Column 33, Lines 22-28). Thus, it would have been obvious to a person of ordinary skill in the art, at the time of the invention, to utilize Takahara's active matrix LCD as Wilska's matrix display, so as to provide a high quality display image.

In regards to claim 23, Wilska discloses a battery [3] (see Figure 3).

In regards to claim 24, Wilska discloses a camera [15, 16] (see Figures 1-3; Page 4, Paragraph 5).

In regards to claim 25, Wilska discloses selecting to view the camera image on the display, or transmitting the image to a remote location (see Figures 1-3; Page 5, Paragraph 1).

In regards to claim 26, Wilska discloses an array of at least 75,000 pixel electrodes (see Page 4, Paragraph 2). Wilska does not expressly disclose the LCD having an active area of less than  $100\text{mm}^2$ . However, Wilska's does disclose variable LCD dimensions (see Page 4, Paragraph 2). Therefore, it would have been obvious to an artisan at the time of invention to utilize a smaller display area (such as  $100\text{mm}^2$  for instance) so as to conserve overall system size and weight.

In regards to claim 27, this claim is rejected under the reasoning applied in the above rejection of claim 26.

Art Unit: 2673

In regards to claim 28, Wilska does not expressly disclose an array of at least 300,000 pixel electrodes. However, Wilska does disclose providing a resolution greater than 640 x 200 pixels<sup>2</sup> (see Page 4, Paragraph 2). Therefore, for the purpose of providing a precise display image, it would have been obvious to an artisan at the time of invention to utilize at least 300,000 pixel electrodes.

***Response to Arguments***

14. Applicant's arguments with respect to claims 1-28 have been considered but are moot in view of the new grounds of rejection.

***Response to Amendment***

15. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Art Unit: 2673

*Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeff Piziali whose telephone number is (703) 305-8382. The examiner can normally be reached on Monday - Friday (6:30AM - 3PM).

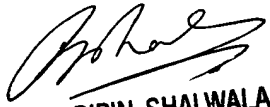
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on (703) 305-4938. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.



J.P.

March 12, 2002



BIPIN SHALWALA  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600